

**ABSTRACT OF THE DISCLOSURE**

A method for producing a cable including at least one transmissive element, for example, an element transmitting electrical energy or optionally optical signals as well, and an expanded and cross-linked coating layer in a radially outer position with respect to the at least one transmissive element, the coating layer having a composition including an expandable and cross-linkable polymeric material. The method includes a) extruding the composition; b) forming a coating layer made of expandable and cross-linkable polymeric material with the composition thus extruded; c) expanding the coating layer made of expandable and cross-linkable polymeric material; and d) cross-linking the coating layer made of expandable and cross-linkable polymeric material. The expanding and cross-linking steps c) and d) are carried out by heating the coating layer made of expandable and cross-linkable polymeric material at atmospheric pressure by means of a suitable heating fluid. Savings in production time and costs are attained by the method.